KOPIL'-LEVINA, Z. A. and SHERSHEVSKAYA, O. I.

KOPIL'-LEVINA, Z. A. and SHERSHEVSKAYA, O. I. "On certain disorders of the pupil in cerebral war trauma" In the collection: Boyevaya travma nervnoy sistemy, Khar'kov, 1948, p.185-89.

SO: U-3261, 10 April 53 (Letopis - Zhurnal 'nykh Statey No. 11, 1949)

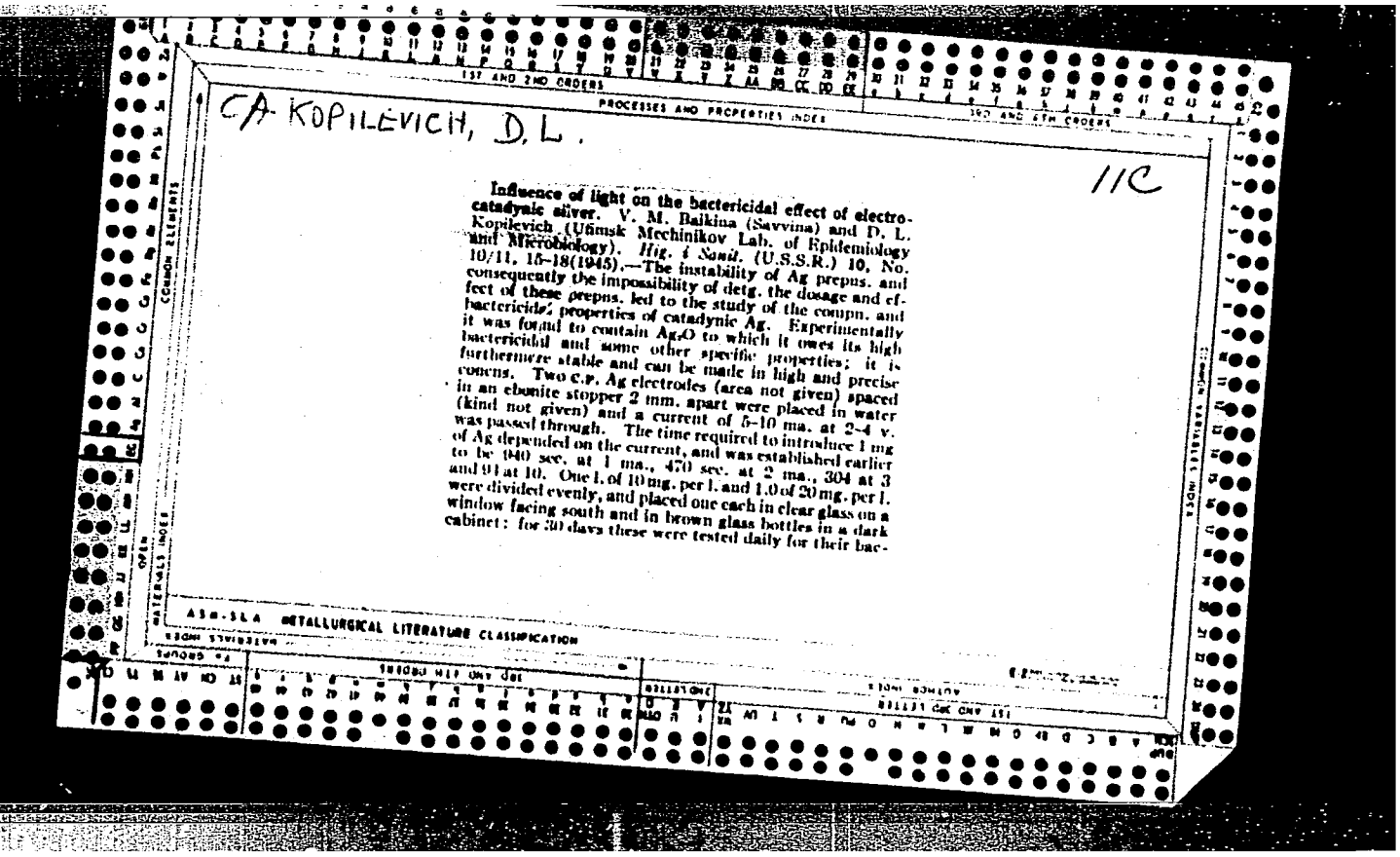
KOPIL'-LEVINA, Z.A., kand.med.nauk

Functional difficulties of vision; diagnosis and treatment.
Oft.zhur. 13 no.5:310 '58 (MIRA 11:10)

1. Iz kafedry psikhiatrii Novosibirskogo meditsinskogo instituta.
(VISION)

KOPILENKO,M.M.; PORTNOY,I.L.

A unique atlas. Visnyk AN URSR 26 no.8:69 Ag'55. (MLRA 8:11)
(Dnieper Valley--Maps)



CA- KOPILEVICH, D. L.

11C

Influence of light on the bactericidal effect of electrocatadynic silver. V. M. Baikina (Savvina) and D. L. Kopilevich (Ufimsk Mechinikov Lab. of Epidemiology and Microbiology). *Hig. i Sanit.* (U.S.S.R.) **10**, No. 10/11, 15–18(1945).—The instability of Ag prepns. and consequently the impossibility of detg. the dosage and effect of these preps. led to the study of the compn. and bactericidal properties of catadynic Ag. Experimentally it was found to contain Ag_2O to which it owes its high bactericidal and some other specific properties; it is furthermore stable and can be made in high and precise concns. Two c.p. Ag electrodes (area not given) spaced in an ebonite stopper 2 mm. apart were placed in water (kind not given) and a current of 5–10 ma. at 2–4 v. was passed through. The time required to introduce 1 mg of Ag depended on the current, and was established earlier to be 940 sec. at 1 ma., 470 sec. at 2 ma., 304 at 3 and 91 at 10. One l. of 10 mg. per l. and 1.0 of 20 mg. per l. were divided evenly, and placed one each in clear glass on a window facing south and in brown glass bottles in a dark cabinet; for 30 days these were tested daily for their bac-

KOPILEVICH, D. L.
CA

Alkaline wastes from petroleum refineries as disinfectants. D. L. Kopilevich (Mechnikov Epidemiol. Microbiol. Inst., Ufa). *Gigiena i Sanit.* **1950**, No. 6, 47.—Alkaline waste liquors, contg. 10% free alkali and some H_2S, are capable of sterilising fecal matter contaminated with intestinal flora in 15-min. exposures at 1:4 dilns. with tap water. The liquor is also suitable for sterilizing laundries of linen contaminated with fecal matter.
G. M. Kosolapoff

BEREZHNAYA, I.A.; BIRYULEV, V.I.; KOPILEVICH, I.G.; PROKOF'YEV, Ye.V.

Mechanism of photoconductivity in lead sulfide layers. Fiz. tver. tela 6 no.9:2873-2876 S '64.

(MIRA 17:11)

1. Gosudarstvennyy opticheskiy institut imeni Vavilova, Leningrad.

GOL'DSHTEYN, L.Ya.; KOPILEVICH, V.S.

Characteristics of the fusability of portland cement raw material mixtures. Trudy Giprotsement no.27:37-55 '63.

(MIRA 17:12)

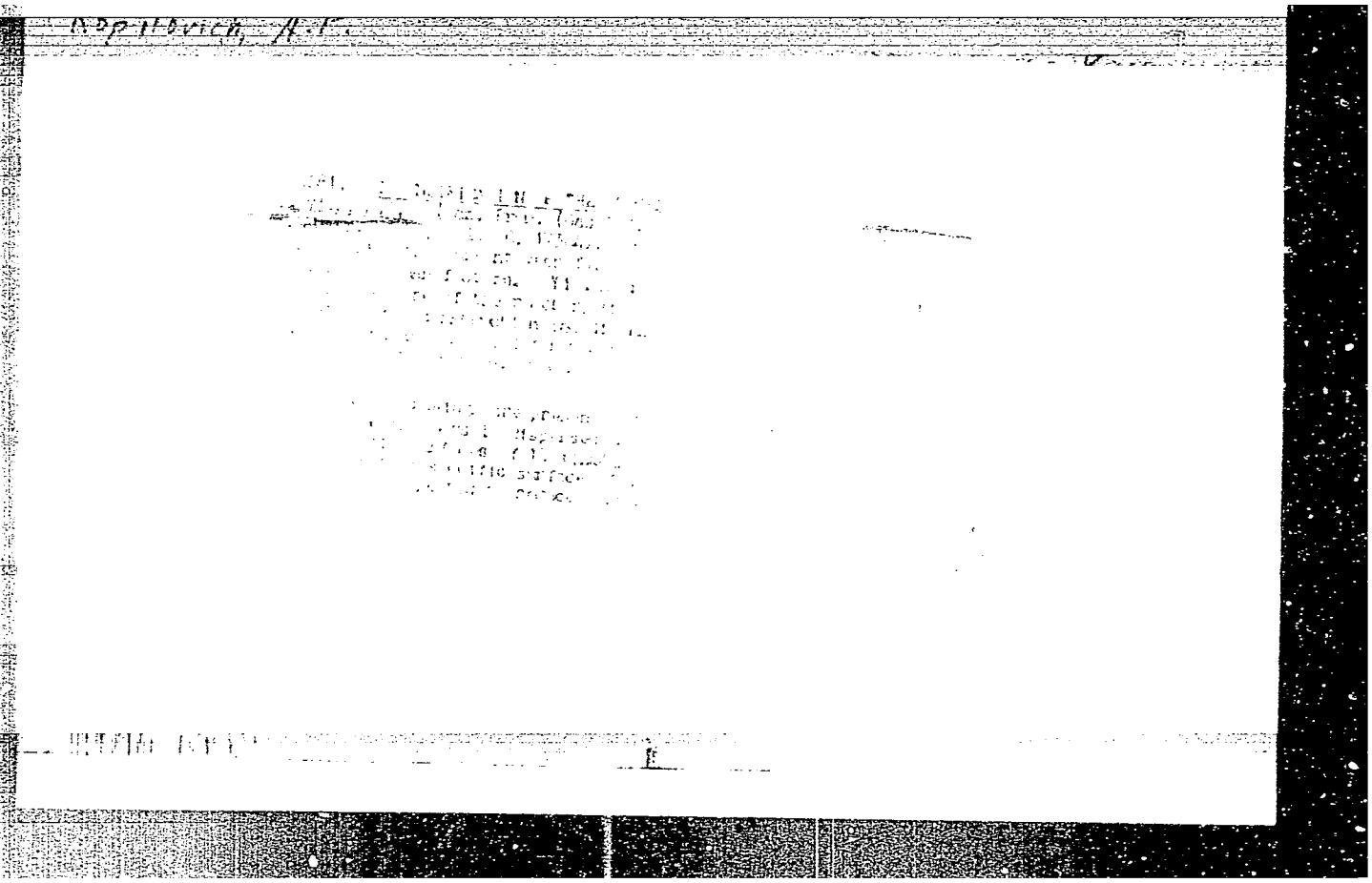
KOPYLOVA, D. K.

ARIPOV, R. A., KOPYLOVA, D. K., LYUBIMOV, V.B., NIKITIN, A. V., PODGORETSKIY, M.I., PORTNOVA, S. I., RIBAKOV, G., STRELTSOV, V. N., TRKA, Z., and CHIKUNOVA, A. I.
RISAYEV, G.

"Inelastic Interactions of π^- Mesons with Nucleons at 7 Gev"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Joint Institute for Nuclear Research,
Laboratory of High Energy, Dubna, 1962



KOPILOVICH, A.P.

[illegible]120. AUTOMATIC REGULATION OF OPERATION OF GAS PRODUCER PLANT.
[illegible] .P. (Gaz. Prom. (Gas Ind., Moscow), [illegible] [illegible] Russian. In [illegible]. 1956, vol. 50, 17384). The [illegible] [illegible] plant is described with the aid of layout [illegible] [illegible]

44186

S/109/62/007/012/001/021
D266/D308

AUTHORS: Kopilovich, L. Ye. and Braude, S. Ya.

TITLE: Amplitude and phase of the field with a lognormal distribution of the components

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 12, 1962, 1988-1996

TEXT: The field has two rectangular components x and y. It is first assumed that x and y are positive and have equal distribution. Changing to polar coordinates the author derives formulas for the distribution of amplitude (r) and phase (φ). The amplitude distribution is found in an integral form whilst its moments are represented by finite series. The second moment is particularly simple:

$$\overline{r^2} = 2e^{\sigma^2+2\mu} \qquad (11)$$

Card 1/3

Amplitude and phase ...

The phase distribution is not calculated from the general formula but with the aid of simple reasoning ($\tan\varphi$ has to be also log-normally distributed) and is obtained in the form

$$W(\varphi) = \frac{1}{\sigma\sqrt{1-\rho}\sqrt{2\pi}\sin\varphi\cos\varphi} e^{-\frac{\ln^2 \operatorname{tg}\varphi}{2\sigma^2(1-\rho)}} \qquad (16)$$

Introducing the parameter $K = \sigma\sqrt{1-\rho}$ it is shown that if $K \ll 1$ then $W(\varphi)$ is concentrated into a narrow lobe located symmetrically to $\varphi = \pi/4$. If $K > 1$ the function spreads out having now a minimum at $\varphi = \pi/4$. The moments are expressed in an integral form which reduces to a simple result only for the first moment when $\bar{\varphi} = \pi/4$. Since it is easier to measure phase difference than the actual value of the phase, the authors also calculate the distribution of

Card 2/3

KOPILOVICH, L.Ye.

Statistical characteristics of the logarithm of the envelope a random process. Radiotekh. i elektron. 8 no.3:494-497 Mr '63. (MIRA 16:3)

(Radio waves) (Information theory)

ACCESSION NR: AP4024496 S/0142/64/007/001/0112/0117

AUTHOR: Kopilovich, L. Ye.

TITLE: Passage of a random signal through a non-inertial logarithmic network

SOURCE: IVUZ. Radiotekhnika, v. 7, no. 1, 1964, 112-117

TOPIC TAGS: logarithmic network, random signal, logarithmic response network, m distribution, correlation function, normalized correlation function

ABSTRACT: An expression is derived for the correlation function of a random signal passing through a network with logarithmic response. The amplitude of the random signal is assumed to have an m-distribution (M. Nakagami, Sympos Statist Methods in Radio Wave Propagation, Pergamon Press, 1960, 3). If the random process is $x(t) = R^2(t)$ and the m-distribution is given by

$$P(x)=\frac{\left(\frac{m}{\Omega}\right)^m}{\Gamma(m)}\cdot x^{m-1}\cdot e^{-\frac{m}{\Omega}x},\quad m>\frac{1}{2},\ \Omega>0.$$

Card 1/3

ACCESSION NR: AP4024496

where $$P(R)=\frac{2\left(\frac{m}{\Omega}\right)^m}{\Gamma(m)}\cdot R^{2m-1}\cdot e^{-\frac{m}{\Omega}R^2},\ m>\frac{1}{2},\ \Omega>0.$$

Then the final expression for the correlation function at the output is given by

$$\rho(\tau)=\sum_{n=1}^{\infty} d_n\cdot r^n(\tau)=d_1\cdot r(\tau)+d_2\cdot r^2(\tau)+\cdots$$

where, $d_1(\beta)$ is an increasing function of $\beta = m/\Omega$ (a parameter which depends both on the parameters of the distribution (2) and on the characteristic of the logarithmic network). From the known m, β, and the normalized correlation function at the input it is possible to determine the correlation function at the output. Orig. art. has: 3 figures and 11 formulas.

ASSOCIATION: None

SUBMITTED: 09Nov62 DATE ACQ: 15Apr64 ENCL: 01

SUB CODE: GE NR REF SOV: 002 OTHER: 004

Card 2/3

KOPILOVICH, L.Ye.

Laws governing the distribution of the envelope of random processes with maximum anthropy. Radiotekh. i elektron. 9 no.2:339-342 F '64. (MIRA 17:3)

BRAUDE, S.Ye.; KOPILOVICH, L.Ye.

Engineering method for the calculation of Fresnel's coefficients. Izv.vyn.ucheb.zav.; radiotekh. 8 no.5:595-601 S-O '65. (MIRA 18:12)

1. Submitted November 13, 1964.

L 27543-66 EWT(d)
ACC NR: AP6007494 SOURCE CODE: UR/0109/66/011/002/0171/0177

AUTHOR: Kopilovich, L. Ye.

ORG: none

TITLE: Discernability of distributions of radio-signal envelopes

SOURCE: Radiotekhnika i elektronika, v. 11, no. 2, 1966, 171-177

TOPIC TAGS: radio signal, random process

ABSTRACT: One of possible measures of discerning distributions is suggested. Let $X = (x_1, \ldots, x_n)$ be a sample of values of a random stationary process $x(t)$ ($x_k = x(t_k)$, $k = 1, \ldots, n$), which has an n-dimensional distribution density $W_1(X)$ or $W_2(X)$. The log of the likelihood coefficient is: $V(X) = \ln [W_1(X) / W_2(X)]$. Under certain conditions, the total probability of error will be given by: $P_n = \zeta P\left(\frac{V-a_1}{s_1} < -U_n | H_1\right) + (1-\zeta) P\left(\frac{V-a_2}{s_2} > U_n | H_2\right)$. With any ζ, the minimum total probability of error is evaluated as: $P_n \leqslant 1/(1+U_n^2)$, which is a statistical distance and can serve as a convenient characteristic of the

Card 1/2 UDC: 621.391.1:519.27

L 27543-66
ACC NR: AP6007494

difficulty of discerning between two distribution laws. Two types of radio-signal-envelope distributions are considered: (a) the m-distribution, which covers most signals transmitted through or reflected from a layer of random inhomogeneities; and (b) the logarithmic normal distribution which also often happens in practice. Qualitative and quantitative patterns of discernability of the above distributions are presented. "In conclusion, the author wishes to thank P. P. Dankov for his useful comments." Orig. art. has: 2 figures and 37 formulas.

SUB CODE: 17, 12 / SUBM DATE: 16Nov64 / ORIG REF: 004 / OTH REF: 005

Card 2/2 BLG

KOPILOVICH, L.Ye.

Random signals and noise with uniform phase distribution.
Radiotekhnika 20 no.10:31-35 O '65. (MIRA 18:11)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi.

KOPILOVICH, O. I.

Onions

Trench method of storing seed-bearing onions, Sad i og., No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

15(5,6) SOV/66-59-3-30/31

AUTHORS: Zhuchenko, V. and Kopilovich, Ya., Engineers

TITLE: Utilization of Crank Case Heaters for Decreasing Foam Formation in Oil /From foreign publications/

PERIODICAL: Kholodil'naya tekhnika, 1959, Nr 3, p 77 (USSR)

ABSTRACT: In the course of its circulation Freon accumulates in a dissolved state in the lubricating oil in the crank case of a compressor. When the compressor is started and an abrupt decrease in pressure follows, the oil forms foam, which escapes from the crank case. The article describes a preventive measure employed abroad which consists in heating the crank case by means of electrical devices.
There is 1 table and 1 foreign reference.

Card 1/1

GAMULYA, G.D., inzh.; KOPILOVICH, Ya.A., inzh.

Assembling hermetic refrigerating units. Khol. tekh. 38 no.6:64-65 N-D '61. (MIRA 15:1)
(Refrigeratin and refrigerating machinery)

REGENTOV, T.P., inzh.; KOPIN, A.I., inzh.

Projection indicator with an increased scale for media pressure indications. Energetik 11 no. 12:14-15 D '63. (MIRA 17:5)

KOPIN, I.

Obligations will be fulfilled. Prom.koop. 14 no.8:5-6 Ag '60.
(MIRA 13:8)

1. Predsedatel' pravleniya oblpromsoveta, g.Kalinin.
(Kalinin Province--Cooperative societies)

KOPIN, Rudolf

Problem of dry separation of Zahorie foundry sand by a sand thrower. Slevarenstvi 11 no.7:288-289 Jl '63.

1. Keramicke zavody, n.p., Kosice, Vyvojove pracovisko Michalovce.

1. KOPINASHVILI, V. YA.

2. USSR (600)

4. Vegetables - Research

7. Varieties derived by an experimental plant breeder. Sad i og. no. 11, 1952

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

40317
S/194/62/000/006/084/232
D413/D308

9.4160

AUTHORS: Kopinets, I.F., and Chepur, D.V.

TITLE: The effect of adsorption of the vapors of certain substances on the static characteristics of mercuric iodide photoresistors

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, abstract 6-3-57 k (Dokl. i soobshch. Uzhgorodsk. univ., Ser. fiz.-matem. nauk, no. 4, 1961, 54-55)

TEXT: The effect was investigated of the adsorption of vapors of certain substances on the photoconductivity of mono- and polycrystalline specimens of mercuric iodide HgI_2. The vapors of ether and ethanol substantially increase the photoelectric sensitivity. Isoamyl alcohol vapor has little effect. Benzene vapor has practically no effect on the photoelectric sensitivity of HgI_2 specimens. The effect of the vapors is explained by the fact that adsorption considerably reduces the velocity of surface recombination of photoelec-

Card 1/2

tric carriers, increasing their life-time. This is confirmed by studies of photoconductivity kinetics. Adsorption of vapors also leads to an increase in the dark conductivity of the specimens and to a change in form of their spectral photoconductivity characteristics. 2 references. [Abstracter's note: Complete translation.]

Card 2/2

41092

S/058/62/000/008/125/134
A160/A101

24,2600

AUTHORS: Chepur, D. V., Dovgoshey, N. I., Kopinets, I. F.

TITLE: The operational stability and the possibility of practically utilizing photoresistors from mercury iodide

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1962, 40, abstract 8-3-80a ("Dokl. i soobshch. Uzhgorodsk. un-t. Ser. fiz.-matem. n.", no. 4, 1961, 61 - 62)

TEXT: The stability of the characteristics of photoresistors from polycrystalline HgI_2 mercury iodide was investigated under prolonged operational conditions (up to 12 months). During the first few days, an "aging" of the photoresistors takes place, and also a decrease of the sensitivity by 30 - 40%, as a rule. After this period, the photoresistors operate steadily. The pattern of the luxampere, volt-ampere, spectral and temperature characteristics practically does not depend on the operational duration of the photoresistors. To improve the stability and the mechanical strength, it is advisable to coat the electrodes of the photoresistors with a thin film of polystyrene or БФ -2

Card 1/2

41770
S/194/62/000/008/040/100
D295/D308

9.4160
9.6150

AUTHORS: Chepur, D.V., Dovgoshey, N.I., and Kopinets, I.F.

TITLE: Stability of operation and possibilities of practical use of mercury biniodide photo-resistors

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1962, abstract 8-3-80 a (Dokl. i soobshch. Uzhgorodsk. un-t, Ser. fiz.-matem. n., no. 4, 1961, 61-62)

TEXT: The stability of the characteristics of photo-resistors of polycrystalline mercury biniodide HgI_2 has been investigated under conditions of prolonged operation (up to 12 months). As a rule, 'ageing' of the photo-resistor occurs in the first few days with a drop of sensitivity of 30 to 40 %; after this period, the photo-resistors work stably. The form of the illuminance current, voltage-current, spectral and temperature characteristics is practically independent of the length of operation of the photo-resistors. In order to improve stability and mechanical strength it is convenient to coat the electrodes of the photo-resistors with a thin film of

Card 1/2

KOPINETS, I.F.; CHEPUR, D.V.

Effect of the adsorption of molecules of certain substances on the photoconductivity and dark conductivity of mercurous iodide samples. Dokl. i soob. UzhGU. Ser. fiz.-mat. i ist. nauk no.5:58-59 '62. (MIRA 17:9)

KOPINETS', I.F. [Kopynets', I.F.]

Effect of adsorption on the photo- and dark conductance of mercury iodide. Nauk. zap. UzhGU 49:63-70 '62.

(MIRA 18:2)

L 3447-66 EWT(m)/EPF(c)/T/EWP(t)/EWP(b) IJP(c) JD/GS
ACCESSION NR: AT5020488 UR/0000/64/000/000/0414/0421

59
55
B+1

AUTHORS: Kopinets, I. F.; Kuznetsova, S. T.; Chepur, D. V.

TITLE: The effect of adsorption of the vapors of certain substances on the photoelectric properties of mercuric iodide

SOURCE: Mezhvuzovskaya nauchno-tekhnicheskaya konferentsiya po fizike poluprovodnikov (poverkhnostnyye i kontaktnyye yavleniya). Tomsk, 1962. Poverkhnostnyye i kontaktnyye yavleniya v poluprovodnikakh (Surface and contact phenomena in semiconductors). Tomsk, Izd-vo Tomskogo univ., 1964, 414-421

TOPIC TAGS: adsorption, mercuric iodide, photoelectric property, carbon dioxide, methane, hydrogen peroxide, ammonia, benzene, methanol, ethanol, ether, acetone, cryostat, dark conductivity, semiconductor/ M17/9 galvanometer

ABSTRACT: Experiments were performed on the effect of adsorption of carbon dioxide, methane, water, hydrogen peroxide, ammonia, benzene, methanol, ethanol, ether, and acetone on the dark conductivity, static characteristics, and kinetics of the photoconductivity of single crystals and polycrystalline ingots of red mercuric iodide. The work was performed to obtain information on the effect of surface phenomena on the above characteristics of red HgI_2. Specimens with thick-

Card 1/2

L 3447-66
ACCESSION NR: AT5020488

4

nesses of from 1-2 to 0.01 mm--prepared by sublimation from the gaseous phase--were studied in a cryostat, and the conductivity was measured with an M17/9 galvanometer. It was found that adsorption of vapors of carbon dioxide, methane, water, benzene, and ether have little effect on the dark conductivity, effective carrier lifetime, and quantum yield of HgI_2, while vapors of methanol, ethanol, acetone, hydrogen peroxide, and ammonia increase the photo- and dark conductivity, effective carrier lifetime, and quantum yield. This increase was interpreted on the basis of F. F. Vol'kenshteyn's theory of chemosorption (Elektronnaya teoriya kataliza na poluprovodnikakh, Fizmatgiz, 1960) by free electrons and holes, as well as by excitons, with the latter dominating. Orig. art. has: 4 graphs, 1 figure, and 3 formulas.

ASSOCIATION: Ushgorodskiy gosuniversitet (Ushgorod State University)

SUBMITTED: 06Oct64 ENCL: 00 SUB CODE: SS

NO REF SOV: 005 OTHER: 003

Card 2/2

L 16188-63 EWT(1)/EWT(m)/EWP(q)/BDS/EEC(b)-2 AFFTC/ASD/ESD-3/IJP(C) JD/AB

ACCESSION NR: AR3005166 S/0058/63/000/006/E081/E081

66

SOURCE: RZh. Fizika, Abs. 6 E545

AUTHORS: Kopinets, L. F.; Chepur, D. V.

TITLE: Effect of adsorption of molecules of some substances on the photoconductivity and dark conductivity of mercury-iodide specimens

CITED SOURCE: Dokl. i soobshch. Uzhgorodsk. un-t. Ser. Fiz.-matem. i istor. n., No. 5, 1962, 58-59

TOPIC TAGS: Mercury iodide, photoconductivity, dark current, adsorption of molecules, ethyl alcohol, methyl alcohol, benzene, acetone, water, air

TRANSLATION: Results are reported of experimental investigations of the influence of adsorption of molecules of different substances on the dark current and the kinetics of photoconductivity of mercury-iodide specimens obtained by sublimation from the gas phase. The adsorption of molecules of ethyl and methyl alcohol and acetone increases appreciably (by 2-3 orders of magnitude) the dark conductivity, the lifetime of the photocurrent carriers, and its quantum yield. On the other

Card 1/2.

L 16188-63

ACCESSION NR: AR3005166 0

hand, adsorption of molecules of benzene, water, and air does not exert a noticeable influence on the aforementioned parameters. It follows therefore that in the case of adsorption of vapor of alcohol and acetone there occurs not only physical adsorption, but also chemisorption, which causes the occurrence of additional energy levels, on which dissociation of excitons take place. This increases the concentration of the free carriers, i. e., increases the conductivity.
F. Nad'.

DATE ACQ:15Jul63 SUB CODE: PH ENCL: 00

Card 2/2

KOPINSKI, J.

"Spare Parts Present an Important Economic Problem", p. 351, (TECHNIK, Vol. 27, No. 9, Sept. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5. May 1955, Uncl.

KOPINSKI, J.

"For a More General Use of Shaping Processes and Shaping Machinery." P. 64.
(PRZEGLAD TECHNICZNY, Vol. 75, No. 2, Feb. 1954. Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955 Uncl.

KOPINSKI, J.

Savings metal in machine building. p. 201.
(MECHANIK. Poland. Vol. 29, no. 6, June 1956.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

KOPINSKI, J.

KOPINSKI, J. The decision of the Presidium of the Government concerning research on the development of technique. p. 101

Vol. 77, no. 3, Mar. 1956
PRZEGLAD TECHNICZNY
TECHNOLOGY
Warszawa, Poland

So: East European Accession Vol. 6, no. 2, 1957

P/002/60/000/003/002/003
D001/D101

AUTHORS: Kopiński, Jerzy, and Tuszko, Aleksander

TITLE: On the organization of research and planning problems in the USSR

PERIODICAL: Nauka Polska, no. 3, 1960, 152-172

TEXT: In this article the authors present their own impressions and observations perceived as the result of personal contacts with representatives of central and regional Soviet scientific bodies during their official visit to the USSR. The most vivid impression which struck the authors is the extensive cooperation between science and the producing industry. In 1959 there were about 3,200 scientific outposts and institutions in the USSR employing about 300,000 scientific workers. About 50% of them were employed by scientific research institutes and 140,000 by 800 university-type schools. Scientific outposts in the USSR are grouped around: (1) The USSR Academy of Sciences, which is the highest scientific authority in the country; (2) University-level schools, (3) Industry.

Card 1/7

P/002/60/000/003/002/003
D001/D101

On the organization of research...

The largest organization is the Academy; it employs about 20% of all scientists in the USSR including over 400 academy members (academicians) and about 18,000 scientific workers appointed to over 200 Academy scientific outposts. Apart from the USSR Academy, there are also Academies of Sciences in the 13 republics forming the Soviet Union with about 750 academicians and 10,000 scientific workers. Medicine, agriculture, and building and architectural problems are dealt with by respective separate academies, employing jointly about 14,000 scientists. The USSR Academy working plan includes about 5,000 items, of which an integral part consisted of about 90 problems of principal importance and of which 30 were selected as the leading ones. The second group comprises the university-level schools which employ about 140,000 scientific workers of which 45% have scientific titles or degrees. Research laboratories of this group solved about 30,000 research problems in 1959, of which 1,500 were classified as important. Three hundred problems of particular importance for the national economy were investigated on government request. The third group of research institutions comprises the industrial scientific institutes, called "branch institutes",

Card 2/7

On the organization of research...

tackling problems concerning mainly the respective branches of industry. These institutes employ about 25% of the total number of scientific workers available in the USSR and many thousands of engineers, designers, technologists, etc., as well. It is difficult to present more accurate figures concerning this group, because, following the reorganization of some ministries in the USSR a few years ago, these institutions too, are actually in the state of reorganization. These outposts are now subordinate either to the scientific-technical branch committees (like the Automation and Machine Construction Committee, Chemistry Committee, Radioelectronics Committee, etc.), to the USSR and Republic Planning Commissions or to the National Economy Councils. The USSR Planning Commission employs about 20,000 scientific workers and the Committee for Chemistry also about 20,000, and so on. In general, all these institutions have their own design and technological offices and in the majority of cases workshops and prototype experimental laboratories as well. One can assume that all scientific outposts in the USSR employ (including technicians and auxiliary assistants) over a million scientific workers. There are two main tendencies in establishing

Card 3/7

On the organization of research...

the Academy of Sciences' trend of work. Industry advocates a more practical approach to problems by asking for ready-made standards, prototypes and processes directly applicable in industry; the other tendency backs new lines of theoretical research on basically important problems. As to research carried out within industry, the tendency prevails to join small individual plant laboratories into large, well-equipped research institutes. Planning and coordination of research work is carried out in the USSR on an established pattern. Each problem which is to be investigated is clearly defined and its reason and practical usefulness explained. For instance, the problem is as follows: To examine metal flow at 600-800°C. The purpose of this research project is to select materials for gas- and steam turbines which will be working at 600-800°C. Investigation plans are worked out in a series of standard stages as follows: (1) General investigation of the problem including an analysis of the actual state of knowledge concerning this problem both at home and abroad; (2) Preparation of theoretical and practical investigation and experimentation program and suggesting the

On the organization of research...

method which will have to be applied; (3) Carrying out the proposed theoretical, experimental and technical-economic investigation; (4) Designs for the construction of prototypes and models of automation equipment, installations and apparatus; (5) Testing of the above-mentioned assemblies; (6) Working out the specification or documentation for serial production of new systems of automation or new devices, and introduction into practice; (7) Checking of the technical economic effectiveness and preparing the final report for publication. Directives for carrying out research on the most important problems are sanctioned by the USSR Council of Ministers. An annual report of completed research work is sent back to the Planning Commission and Scientific Technical Committee which recommend them for industrial exploitation. If the problem is a complicated one and can't be solved by one institution, it is one of the Academy of Sciences' duties to coordinate research carried out by its various outposts. In particularly important cases, the Academy convenes scientific coordinating councils including representatives of universities, industrial institutes and industry. Research on polymers, for instance, is carried out by 150 outposts, subordinate to the

Card 5/7

P/002/60/000/003/002/003
D001/D101

On the organization of research...

USSR Academy of Sciences, Republic Academies, Ministry of Higher Education, the Committee for Chemistry and 124 central industrial plant laboratories, subordinate to several Councils of National Economy. One of the basic conditions for the proper functioning of research is the knowledge of scientific progress achieved by the USSR and foreign research institutions. This is looked after by a widely-branched information service carried out by Vsesoyuznyy Institut Nauchnoy i Tekhnicheskoy Informatsii (All-Union Institute of Scientific and Technical Information) "VINITI" for short, subordinate to the USSR Academy of Sciences and the Gosudarstvennyy Nauchno-Tekhnicheskiy Komitet (State Scientific-Technical Committee) "GNTK" for short. Its publication the "Referativnyi Zhurnal" (Reference Journal) is the most complete source of the world's research documentation. In order to maintain a high caliber of the institutes' workers, a suggestion was put forward that one half of all posts should be gradually filled by the most capable university graduates and engineers designated by industry. After three years probationary period only 10-15% of the very best would be retained and the remainder

Card 6/7

On the organization of research...

replaced by a new influx; the 85-90% rejected persons would be redirected to industrial institutes for less important work. Following names of USSR scientists are mentioned in this article: Academicians N. N. Syemyonov, Secretary of Chemistry Department of the USSR Academy of Sciences, A. Blagovorov, I. Arbolevskiy, A. Minc, B. Stechkov, Corresponding member of the Academy, A. Kursh, Professor at Moscow University, and Elyutin, Minister of Higher Education. There are 2 Soviet references.

Card 7/7

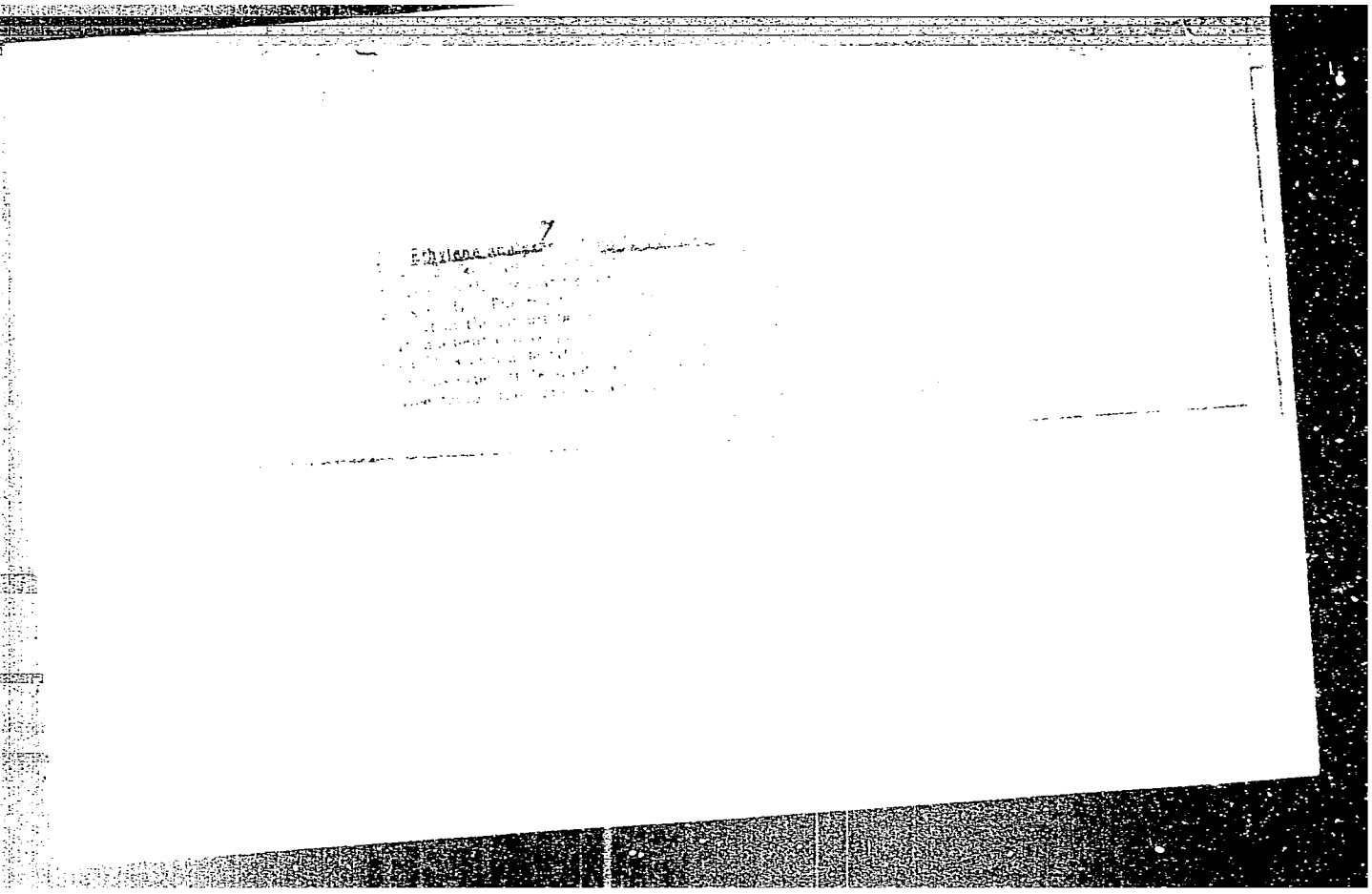
FEDOROV, V.D.; GUSEV, M.V.; SOKOLOV, L.I.; SOLIVO-DOBROVOL'SKIY, L.B.; KOPIROVSKIY, K.M.; SHLENOVA, G.S.; CHAYKIN, I. Ya.; RAZNOSHCHIK, V.V.; SPANOVSKAYA, V.D.; GRIGORASH, V.A.; MARKOVA, K.P.; MAKSIMOV, V.N.; TELITCHENKO, M.M.; LEVSHINA, N.A.

Supplement. V.D.Fedorov and others. Biul. MOIP. Otd. biol. 69 no. 3:158-166 My-Je '64. (MIRA 17:7)

KOPISH, V.A.

The KV235 single-crank open inclinable press with 63-ton capacity. Biul.tekh.-ekon.inform. no.2:12-13 '60. (MIRA 13:6)

(Forging machinery)



KOPISTYANS'KIY, R.S. [Kopystians'kyi, R.S.]

Studying fractures of cores in rocks of Carpathian oil fields. Pratsi Inst. geol. kor. kop. AN URSR 4:21-30 '61. (MIRA 16:7)

(Carpathian Mountains--Petroleum geology)

KOPISTYANSKIY, R.S. [Kopystians'kyi, R.S.]; PORFIR'YEV, V.B. [Porfir'iev, V.B.], akademik, otv.red.; CHEKHOVICH, N.Ya. [Chekhovych, N.IA.], red.izd-va; YEFIMOVA, M.I. [IEfimova, M.I.], tekhn.red.

[Importance of rock fractures in the formation of oil fields in the Soviet Carpathians] Znachennia trishchynyvatosti porid u formuvanni naftovykh rodovyshch Radians'kykh Karpat. Kyiv, Vyd-vo Akad.nauk URSR, 1959. 73 p. (MIRA 13:2)

1. AN URSR (for Porfir'yev).
(Carpathian Mountains--Petroleum geology)

KOPISTYANSKIY, R.S. [Kopystians'kyi, R.S.]

Second All-Union Conference on Fractured Reservoirs. Geol. zhur. 23 no.5:105-106 '63. (MIRA 16:12)

KOPISTYANSKIY, R.S. [Kopystians'kyi, R.S.]

Time of the formation of the Carpathian oil fields. Pratsi Inst. geol. kor. kop. AN URSR 3:31-38 '61. (MIRA 16:7)

(Carpathian Mountains--Petroleum geology)

[illegible], B. (U.S.S.R.)

With the papermakers of the Soviet Union. Przegl papier 20 no.6: 197-193 Je '64.

KOPIT, B.; KUSAK, M. [translator]

Present trends in the development of pulp and paper production in the Soviet Union. Papir a celuloza 20 no.1:15-16 Ja '65.

1. Chief Editor of the periodical "Lesnaia promyshlennost," Moscow (for Kopit).

KOPIT, Boris Savel'yevich; ORESHKIN, Boris Sergeyevich; MYAGKOV, M.M., red.; RAKOV, S.I., tekhn.red.

[Forest conveyor] Lesnoi konveier. Moskva, Izd-vo VTsSPS, Profizdat, 1959. 110 p. (MIRA 13:2)
(Lumbering--Machinery)

KOPIT, B.S.; MIKHAYLOV, A.V.; CHLENOV, A.F.; IDOV, P.I.; YUKHNOV, I.I.; TSARSKIY, S.V.; BARAUSOV, V.A.; PETROV, A.I.; LIFSHITS, L.Z.; ABATUROV, K.I.; SOKOL'SKAYA, Zh.M.; MEZHEVICH, V.N.; DAVYDOV, L.I.; VLASIKHIN, A.V.; CHEKALOV, L.N.; STARICHKOV, T.I.; KHUBLAROV, A.Ye., red.; PITERMAN, Ye.L., red.izd-va; PARAKHINA, N.L., tekhn.red.

[Our beacons; collection of articles on progressive workers in lumber, paper, woodworking industries and forestry] Nashi maiaki; sbornik ocherkov o peredovykh liudiakh lesnoi, bumazhnoi i derevo-obrabatyvaiushchei promyshlennosti i lesnogo khoziaistva. Moskva, Goslesbumizdat, 1961. 125 p. (MIRA 15:2)
(Forests and forestry) (Wood-using industries)

SOV/137-58-9-18581

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 58 (USSR)

AUTHORS: Prokhorenko, K.K., Kopit, G.S., Urinson, A.I., Lomakin, A.V.

TITLE: On the Expediency of Smelting Pipe Metal Without Preliminary Deoxidation (O tselesoobraznosti vyplavki trubnogo metalla bez predvaritel'nogo raskisleniya)

PERIODICAL: V sb.: Staleplavil'n. proiz-vo. Moscow, Metallurgizdat, 1958, pp 11-18

ABSTRACT: Experimental smeltings of killed steels carried out at the metallurgical im. Andreyev plant in Taganrog were divided into two series: the first series involved preliminary deoxidation in the furnace with the aid of Fe-Mn only, in conjunction with the addition of 45%-Fe-Si and Al into the ladle; in the second series Fe-Mn was added to the ladle rather than to the furnace. In the first instance, in case of steels D and St. 4, the Si losses were reduced from 20-33% to 5-16%; in the second instance, in the case of steels 40Kh and 50, the Si and Mn losses were reduced from 35-37 and 35-40%, respectively, to 13-15 and 25-26%. The smelting period was reduced by 15 minutes, a time commonly employed for preliminary deoxidation. The number of

Card 1/2

KOPIT, R. Z.

26665 Vosstanovlenie kon yunktival'noy polosti svobodnoy peresadkoy kofi, konservirovannoy po metodu akademika F. P. Filatova. Oftalmol. Furnal, 1949, No. 3, s. 101-06

SO: LETOPIS' NO. 35, 1949

TREYMEYT, B.A., kand.med.nauk; DROZDOVSKAYA, V.S., nauchnyy sotrudnik; KOPIT, R.Z., kand.med.nauk

Treatment of trachoma with synthomycin. Oft.zhur. 13 no.7:392-395 '58. (MIRA 12:1)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta glaznykh bolezney imeni prof. Girshmann (dir. - zasl. deyatel' nauki, chlen-korr. AMN SSSR prof. I.I. Merkulov).
(CONJUNCTIVITIS, GRANULAR) (CHLOROMYCETIN)

LINETSKAYA, Ye.E., nauchnyy sotrudnik; KOPIT, R.Z., kand.med.nauk

Treatment of trachoma with biomycin. Oft.zhur. 13 no.7:395-399 '58.
(MIRA 12:1)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta glaznykh bolezney imeni prof. Girshmana (dir. - zasluzhennyy deyatel' nauki, chlen-korr. AMN SSSR prof. I.I. Merkulov).
(CONJUNCTIVITIS, GRANULAR)
(AUREOMYCIN)

KOPIT, R.Z., kand.med.nauk; FOCHTMAN, S.M.; TREYT, B.A.; PIS'MENNAYA, F.G., nauchnyy sotr.; MERKULOV, I.I., zasl. deyatel' nauki USSR, prof., red.;

[History of ophthalmology in the Ukraine; the Professor L.L. Girshman Institute of Eye Diseases] K istorii oftol'mologii na Ukraine; Institut glaznykh boleznei imeni professora L.L. Girshmana. Pod red. I.I.Merkulova. Khar'kov, Khar'kovskoe knizhnoe izd-vo, 1960. 112 p. (MIRA 15:7)

1. Direktor instituta glaznykh bolezney imeni professora Girshmana, Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Merkulov).

(UKRAINE--OPHTHALMOLOGY)

KOPITAYKO, S.A.; IVANOV, N.A.

Slag gypsum walls of "hydraulic" gypsum for rooms subject to considerable moisture. Rats. i izobr. predl. v stroi. no.96:7-9 '54. (MLRA 8:7)

1. Upravleniye Mosenergostroymaterialy Ministerstva elektrostantsiy.
(Walls)

KOPITAYKO, S., inzh.; TSIKMAN, N., inzh.; GALKIN, A., inzh.

Assembling prefabricated wooden trusses. Stroitel' no.3:19 Mr '58.
(Trusses) (MIRA 11:2)

KOPITOVA, G. F.

USSR/Miscellaneous-----machine construction

Card 1/1

Authors : Kopytov, V. F., Cand. in Tech. Sci.; Kopitova, G. F., engineer; and Sorokin, P. V.

Title : Decarbonizing steel in reverbatory furnaces

Periodical : Vest. mash. 34/3, 36-40, Mar/1954

Abstract : The products of burning fuel in a reverbatory furnace at high temperature oxidize steel, producing scales on it, and such oxidation causes oxidation of the carbon in the surface layer of the steel. When the decarbonizing of the surface layer is rapid the decarbonized layer is found under the scale after heating. In order to reduce decarbonization it is necessary during hot processing to heat the steel more rapidly. One Russian reference, dated 1949. Graphs.

Institution : .....

Submitted : .....

KOPITSA, F. A.
SINARENKO, I. A.

MINING ENGINEERING

Efficient system of mining at the Komintern mine. Gor. zhur. 126 no. 6 (1952)

Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.

NEDIN, V. V.: KOPITSA, F. A.

Mining Engineering

Trench method of undercutting. Gor. zhur. no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

KOPITSA, F. A.

KOPITSA, F. A.: "Investigation of chamber systems of working as applied to the ore mines of the Krivbass." Min Higher Education Ukrainian SSR. Dnepropetrovsk Order of Labor Red Banner Mining Inst imeni Artem. Dnepropetrovsk, 1956. (Dissertation for the Degree of Candidate in Technical Science.)

Source: Knizhnaya letopis' No. 28 1956 Moscow

KOPITSA, F.A., inzh.

Chamber and pillar undercutting in Krivoy Rog mines. Nauch. dokl. vys. shkoly; gor. delo no.2:3-19 '58. (MIRA 11:6)

1. Predstavlena kafedroy razrabotki rudnykh mestorozhdeniy i otkrytykh rabot Dnepropetrovskogo gornogo instituta im. Artema.
(Krivoy Rog--Mining engineering)

BORISENKO, Sergey Grigor'yevich; KOPITSA, Fedor Andreyevich. Prinimali uchastiye: KULIKOV, V.V.; YAREMENKO, D.N., BUNIN, A.I., inzh., retsenzent; POLISHCHUK, A.D., kand.tekhn.nauk, retsenzent; YERMOLENKO, M.I., otv.red.; SIPYAGINA, Z.A., red.izd-va; SABITOV, A., tekhn.red.

[Chamber and pillar system of ore mining] Kamernaia sistema razrabotki v gornorudnoi promyshlennosti. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 399 p. (MIRA 13:5)
(Mining engineering)

83458
S/122/60/000/006/005/012
A161/A026

1.1200

AUTHOR: Kopitsyn, V. I., Engineer

TITLE: Shaping Press for Tubular Steel Shapes

PERIODICAL: Vestnik mashinostroyeniya, 1960, No. 6, pp. 34-36

TEXT: A new press is described and shown in photograph (Figure 2). The P-667 (P-667), produced by Kolomenskiy zavod tyazhelogo stankostroyeniya (Kolomna Heavy Machine Tool Plant) was designed in the Designing Bureau of the Moscow oblast' Sovnarkhoz. It can produce hollow tubular and solid bar shapes, works with temperatures of 1,100-1,250°C at very short contact of material with the tools (3-6 sec. with the die), and with a pressure of 3,150 tons in the pressing and 445 tons in the piercing section. The maximum diameter of billet is 270 mm and maximum length 900 mm. The drive is hydraulic (water), with a 320 kg/cm^2 pressure; the control is electrohydraulic with oil as working fluid. The auxiliary equipment consists of: 1) a feeder for moving press dies into the prism of the pusher in the billet feeder; 2) a loading table and billet feeder; 3) a receiving table facilitating the work in the shaping process; 4) a friction saw for

Card 1/3

Shaping Press for Tubular Steel Shapes

cutting off the work piece; 5) a mechanism for moving the press-die with the press residue to the shears; 6) a pusher for placing the die with the residue under the shears; 7) hydraulic shears separating the residue from the die; 8) a car for moving work pieces to removers; 9) removers for moving work pieces from the table to the magazin; they have three sections and work with one, two or all three, depending on the length of the work. Billets are loaded into the press by a hydraulic billet feeder and a press-die is laid before the feeder's prism from a special tray. The heated billet rolls onto the feeder on a layer of fiber glass or glass powder, and fusing glass covers it with a solid film. Special plugs of fiber glass are placed on the prism and on both end faces of the billet. The glass substance having no precise melting point and being viscous at the pressing temperature solves three problems at the same time: it protects the metal from oxidation and scale formation, provides lubrication between pressed metal and tools, and forms a heat-insulating layer between them. As glass does not solidify abruptly, it squeezes out gradually and continually. The finished work piece is cut off by the hot saw. Tubular forms are shaped with preliminary piercing with a needle, which remains in the die during the pressing being constantly cooled with fluid circulating through it.

IX

83458
S/122/60/000/006/005/012
A161/A026

Shaping Press for Tubular Steel Shapes

A stepped needle may be used to obtain varying cross section of work. After cooling the pressed work piece usually is straightened on a special machine. The press can work semi-automatically with groupwise automation of separate stages, or with manual resetting; it performs 40-50 pressing operations per hour. There are 2 sets of figures and 1 photograph.

X

Card 3/3

KOPITSYN, V.I.

Patent information in the design office. NTI no.11:13-18 '64.
(MIRA 18:1)

S/121/60/000/006/007/008

AUTHOR: Kopitsyn, V. I.

TITLE: Eliminating Vibrations of Vertical Boring and Turning Machines With Large Sweep of the Tool Arm Slide Bar

PERIODICAL: Stanki i Instrument, 1960, No. 6, pp. 36-37

TEXT: The author describes a method of imparting more rigidity to the slide bars of tool arms of vertical boring and turning machines, operating with large sweeps, in order to prevent vibrations. The slide bar of the lateral tool arm is used as an additional support for the vertical slide bar, which makes it possible to ensure a constant thickness of chips and thus eliminates one of the most important factors in the origination of natural oscillations. Simultaneously, also the rigidity in direction of the cutting stress is increased and the torsion of the slide arm reduced. This method which has been tested at the Kolomenskiy Zavod Tyazhelogo Stankostroyeniya (Kolomna Plant of Heavy Machine Tool Construction) for the machining of large-size cylinders of hydraulic presses makes it possible to operate with big sweeps of the tool arm slide bars without reducing the cutting conditions. The author points out that it is possible, on the other hand, to use the vertical slide bar as prop of the slide bar of the lateral tool arm, even for

Card 1/2

KOPITSYN, V.I.

Using welded-steel body parts in the manufacture of machine tools.
Stan.i instr. 32 no.12:3-8 D '61. (MIRA 14:12)
(Machine tools--Design and construction)

L 22448-66 EWT(m)/EWP(j)/T RM

ACC NR: AP6002590 (A) SOURCE CODE: UR/0286/65/000/023/0088/0088

AUTHORS: Petkevich, A. A.; Kopityanskiy, L. R.; Drugov, F. P.; Murav'yeva, T. D.; Byl'tsova, V. K.; Yudina, E. G.; Ponomarev, V. V.; Ryazanov, G. N.

ORG: none

TITLE: Cover for pneumatic tires of wheeled vehicles with a multilayer carcass. Class 63, No. 176808 announced by Krasnoyarsk Tire Factory (Krasnoyarskiy shinnyy zavod)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 88

TOPIC TAGS: tire, vehicle, polyamide

ABSTRACT: This Author Certificate presents a cover for pneumatic tires of wheeled vehicles with a multilayer carcass formed by polyamide and viscose cords. For improved tire life, the first and last few layers are made of polyamide cords, while the middle layers consist of viscose cords (see Fig. 1).

Card 1/2

UDC: 629.11.012.553.1

L 22448-66

ACC NR: AP6002590

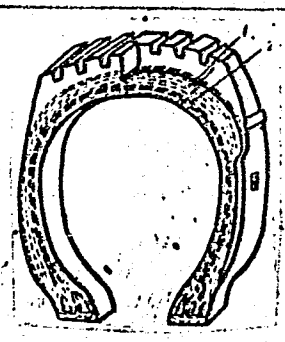


Fig. 1. 1 - carcass layer of polyamide cord; 2 - viscose cord carcass layer.

Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 03Jan64

Card 2/2 BLG

KOPIYEV, S. F. (Professor)

"Heat Supplying," published by the State Publishing House for Construction and Architecture Literature, Moscow, 1953.

A university textbook for students specializing in heat and gas [illegible] supplying and ventilation.

Fundamental information on centralized heat supplying. All aspects are studied, such as: consumption, conduction and production. Different systems of heat supplying are explained as well as, equipment, control methods, automatic systems and district supplying.

LII

[illegible] of earthfill damming of rivers without a preliminary construction of the rock toe walls is recommended. Seven diagrams and 3 photos are given.

Institution: None

Submitted : No date

KOPIYEVSKIY, K., kand.tekhn.nauk

Defects in the joints of series 1-464s large-panel apartment houses. Zhil. stroi. no.1:8-10 '62. (MIRA 16:1)
(Building--Details)

KOPIYEVSKIY, K. P., Candidate Tech Sci (diss) -- "Covering the beds of plains rivers with underwater layers of alluvium in the flowing water without building a banket". Odessa, 1959. 24 pp (Min Higher Educ Ukr SSR, Odessa Construction Engineering Inst), 1,500 copies (KL, No 26, 1959, 125)

KOPIYEVSKIY, K., kand.tekhn.nauk

Natural stone apartment houses. Zhil. stroi. no. 1:20-21 Ja '61.
(MIRA 14:2)

(Moldavia--Stone houses)

KOPIYEVSKIY, K.P. (Kishinev)

Heating apparatus from armocement. Vod. i san. tekh. no.5:35 My '60. (MIRA 13:10)

(Heaters)

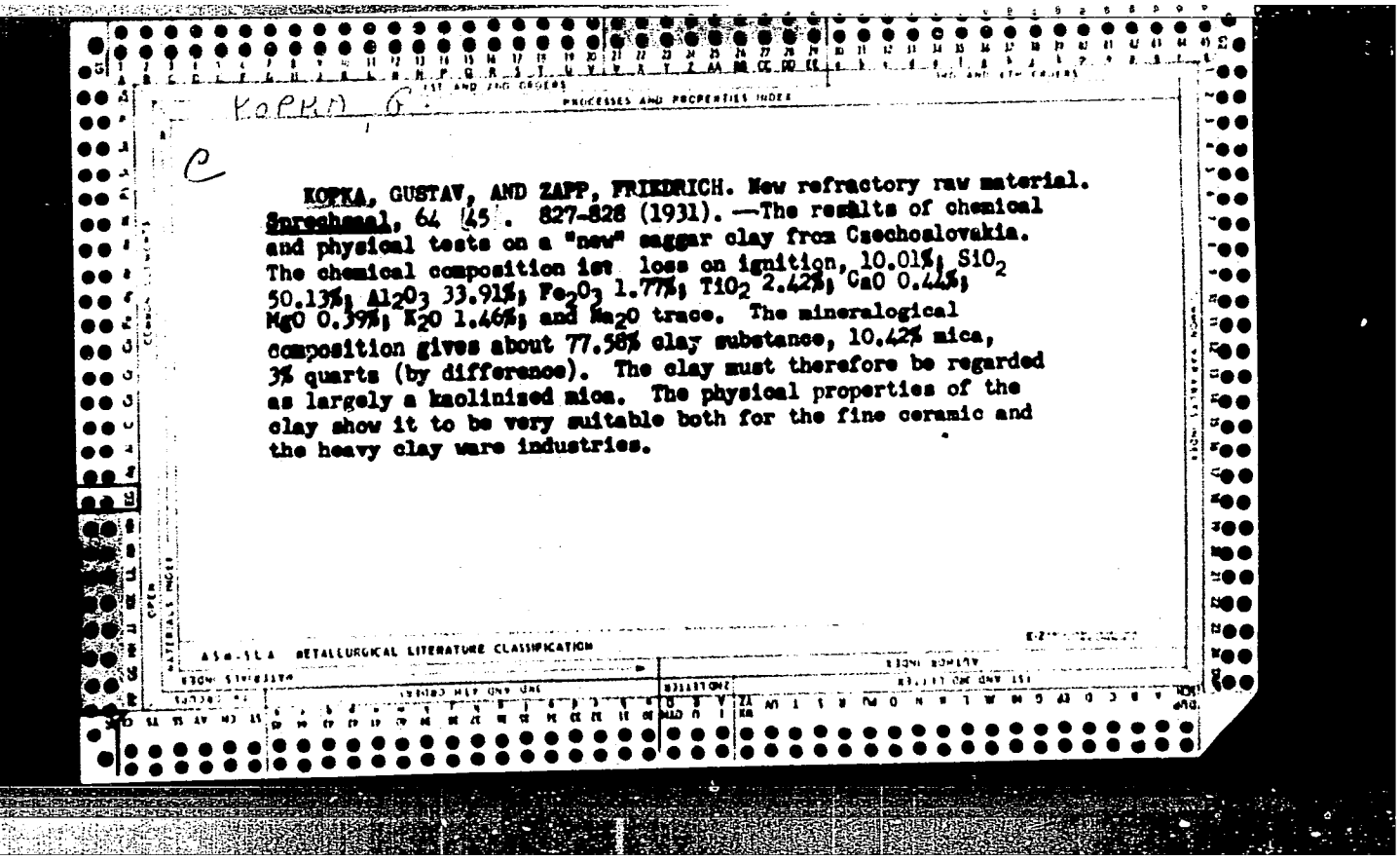
KOPIYEVSKIY, K.P., kand.tekhn.nauk

Raising mesh-reinforced concrete shells using two cranes. Mont. i spets. rab. v stroi. 23 no.4:27-28 Ap '61. (MIRA 14:5)

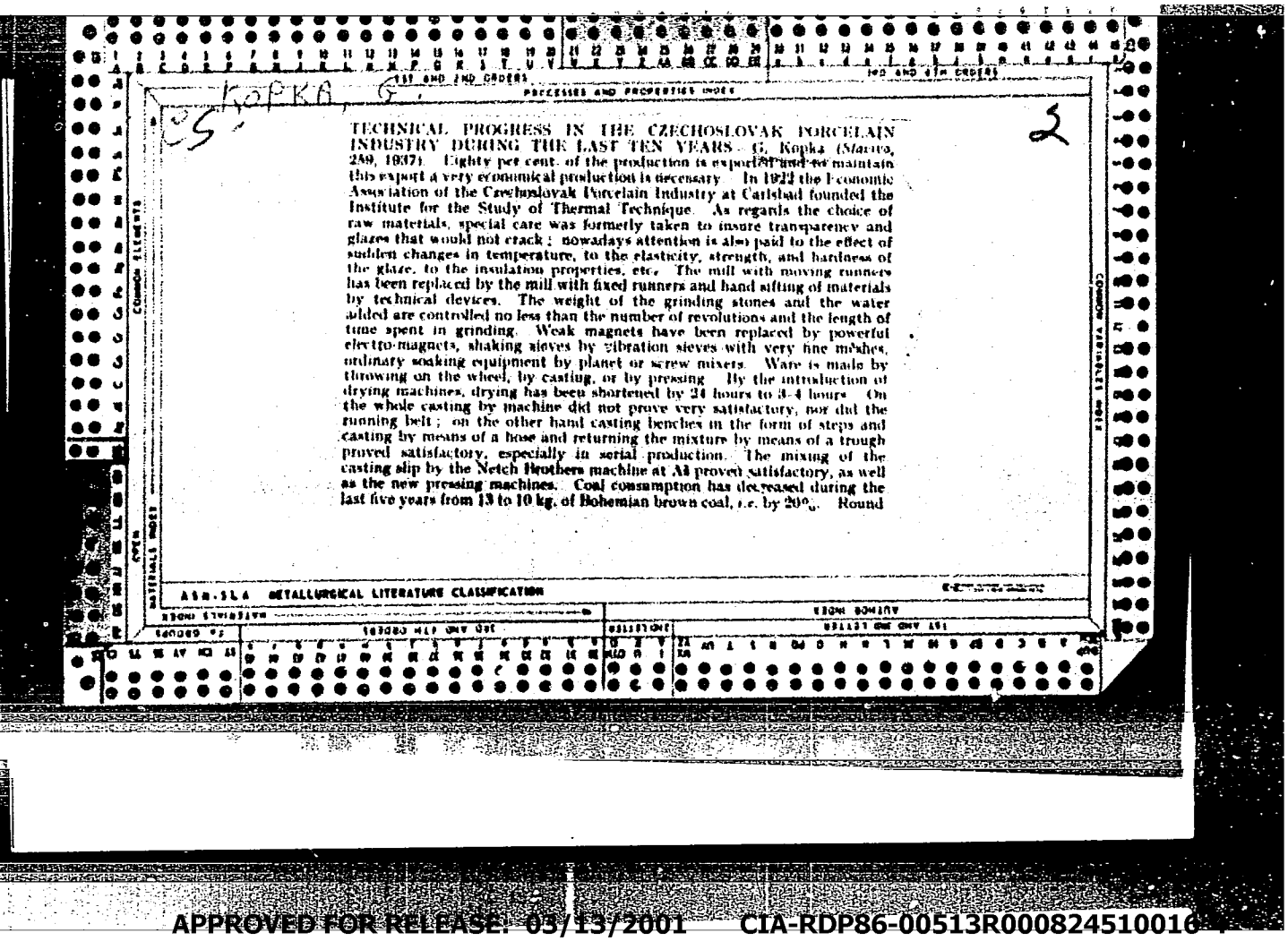
1. Ministerstvo stroitel'stva i stroymaterialov Moldavskoy SSR.
(Reinforced concrete construction)
(Roofs, Shell)

BABUSHKINA, M.I., inzh.; KOPIYEVSKIY, K.P., inzh.

"Steklokrovelit," new roofing and facing material. Stroi. mat. 7 no.2:31-32 F '61. (MIRA 14:3)
(Building materials)



KOPKA, GUSTAV, AND ZAPP, FRIEDRICH. New refractory raw material. Sprechsaal, 64 [45]. 827-828 (1931). —The results of chemical and physical tests on a "new" saggar clay from Czechoslovakia. The chemical composition is: loss on ignition, 10.01%; SiO_2 50.13%; Al_2O_3 33.91%; Fe_2O_3 1.77%; TiO_2 2.42%; CaO 0.42%; MgO 0.39%; K_2O 1.46%; and Na_2O trace. The mineralogical composition gives about 77.58% clay substance, 10.42% mica, 3% quartz (by difference). The clay must therefore be regarded as largely a kaolinized mica. The physical properties of the clay show it to be very suitable both for the fine ceramic and the heavy clay ware industries.



KOPKA, G.

2

TECHNICAL PROGRESS IN THE CZECHOSLOVAK PORCELAIN INDUSTRY DURING THE LAST TEN YEARS. G. Kopka (*Sklářa*, 289, 1937). Eighty per cent. of the production is exported and we maintain this export a very economical production is necessary. In 1922 the Economic Association of the Czechoslovak Porcelain Industry at Carlsbad founded the Institute for the Study of Thermal Technique. As regards the choice of raw materials, special care was formerly taken to insure transparency and glazes that would not crack; nowadays attention is also paid to the effect of sudden changes in temperature, to the elasticity, strength, and hardness of the glaze, to the insulation properties, etc. The mill with moving runners has been replaced by the mill with fixed runners and hand sifting of materials by technical devices. The weight of the grinding stones and the water added are controlled no less than the number of revolutions and the length of time spent in grinding. Weak magnets have been replaced by powerful electro-magnets, shaking sieves by vibration sieves with very fine meshes, ordinary soaking equipment by planet or screw mixers. Ware is made by throwing on the wheel, by casting, or by pressing. By the introduction of drying machines, drying has been shortened by 24 hours to 3–4 hours. On the whole casting by machine did not prove very satisfactory, nor did the running belt; on the other hand casting benches in the form of steps and casting by means of a hose and returning the mixture by means of a trough proved satisfactory, especially in serial production. The mixing of the casting slip by the Netch Brothers machine at Ai proved satisfactory, as well as the new pressing machines. Coal consumption has decreased during the last five years from 13 to 10 kg. of Bohemian brown coal, *i.e.* by 20%. Round

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

86662

P/034/60/000/003/001/005
A222/A026

9.7900

AUTHOR: Kopka, Jerzy, Master of Engineering

TITLE: Integrating Circuit With Error Compensation for the Integration of Long-Time Displacement Processes

PERIODICAL: Pomiary-Automatyka-Kontrola, 1960, No. 3, pp. 94-96

TEXT: The limited magnitude of the time constant $\mathcal{T} = RC$ makes RC circuits useless for the integration of long-time displacement processes. In addition, an RC system is impaired by an error due to a varying amplification; the error is proportional to the relative change in amplification. In order to reduce this error, the author used a Miller integrating circuit which also makes possible a boost in accuracy and integration time and behaves much like an RC circuit (time constant $\mathcal{T} = R(K + 1)$, where K is the amplification coefficient) with an amplifier. Since galvanic coupling is imperative between the circuits of long-time displacement integration systems, the separation of the constant components in anode voltage and current is impossible. As anode voltage and current vary in time, they make for an instable amplifier zero. An analysis of the influence of instable zero on integration accuracy results in the formula: $\varepsilon_o = RC \frac{\Delta U_s}{U_1 t}$ (11)

Card 1/2

P/034/60/000/003/001/005
A222/A026

Integrating Circuit With Error Compensation for the Integration of Long-Time Displacement Processes

where ϵ_o is the error due to zero instability, $\triangle U_s$ is the voltage required at the amplifier input in order to compensate for zero instability at the output, and U_1 is the integrated voltage. An example of this integrating method is the circuit shown in Figure 4. The integrating elements are a resistor R = 11.45 MΩ and capacitor C = 0.9 μF, which form a Miller system in the plate-grid circuit of the tube EF 42. Another tube, 6AC7 in a cathode duplicator circuit, is used to produce the error-compensating voltage and to operate the recording instrument. The compensation voltage is derived from the resistor RK. The best result achieved by means of this circuit was an error of 1 % in the integration of a step voltage of -0.26 v after a period of 70 minutes. There are 7 figures and 6 references: 2 Soviet, 1 Polish, 1 Czechoslovak, 1 German and 1 English.

ASSOCIATION: Politechnika Śląska Katedra Elektroniki Przemysłowej (Silesian Polytechnic, Department of Industrial Electronics)

Card 2/2

KREYN, S.E.; KULAKOVA, R.V.; LUZHETSKIY, A.A.; KOPKIN, M.G.; ALEKSANDROV, A.N.

Chemical and electric stability of oils. Khim.i tekh.topl.no.2:60-68 F '56. (Oil analysis) (MIRA 9:9)

KULAKOVA, R.V., kand.tekhn.nauk; KOPKIN, M.G., inzh.

Low-viscosity insulating oils for electric cables and equipment carrying voltages in excess of 220 kv. Vest.elektroprom. 33 no.12:22-25 D '62. (MIRA 15:12)

(Insulating oils)

DEYNEKO, M.M.; KOPKIN, S.G., redaktor; SMIRNOV, G.I., tekhnicheskiy redaktor

[Where to acquire a specialty; a handbook fo students finishing secondary schools, and entering technical vocational, and other schools] Gde poluchit' spetsial'nost'; spravochnik dlia okonchivshikh srednie shkoly, postupaiushchikh v tekhnicheskie uchilishcha, professional'no-tekhnicheskie i drugie postoianno deistvuiushchie shkoly. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1956. 229 p. (MIRA 9:10)

1. Russia (1917- R.S.F.S.R) Ministerstvo prosveshcheniya (Technical education--Directories)

KOPKIN, V.

A very simple corn crib. Sil'. bud. 11 no.4:4-5 Ap '61.
(MIRA 14:6)

1. Golovniy inzhener MTP-1 Ukrndiprosil'gospu.
(Corn (Maize)--Storage)

KOPKIN, V.

Two-chamber corn drier built of local materials. Sil'. bud. 11 no. 1:8-10 Ja '61. (MIRA 14:3)

1. Glavnyy inzh. masterskoy tipovogo proyektirovaniya No. 1 Ukrainskogo gosudarstvennogo instituta proyektirovaniya sel'skogo stroitel'stva.

(Corn (Maize)—Drying)

UTEYEV, A.F.; KOPKINA, V.V.

Tissue therapy in diseases of the nervous system. Zhur.nevr.i psikh. 53 no.10:813-816 O '53. (MLRA 6:10)
(Nervous system--Diseases) (Tissue extracts)

1. KOPLAKOV, P. Ye.
2. USSR (600)
4. Sun - Corona
7. Nature of coronal areas. Astron. zhur. 29 no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Uncl.

YAKHONTOV, L.N.; KOPLAKOVA, V.V.; SHEYNKER, Yu.N.; PERVACHEVA, T.D.

Research at institutes of the Czechoslovak Republic. Med.prom. 13 no.12:52-55 D '59. (MIRA 13:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(CZECHOSLOVAKIA--CHEMISTRY, MEDICAL AND PHARMACEUTICAL)

KOPLAN-DIKS, S.I.

New calibration method for hydrometric rotators in round basins.
Trudy GGI no.36:71-78 '52. (MIRA 11:6)
(Stream measurements) (Calibration)

ANDREYEVA, N.M.; GAVRILOV, A.M.; KOPLAN-DIKS, S.I.; PETRIKEVICH, N.P.; PROSKURYAKOV, A.K., kand.tekhn.nauk; SEMENOVA, Ye.S.; UKHANOV, V.V.; FLEROVA, R.A.; SHAMOV, G.I. [deceased]; GROSMAN, R.V., red.: SOLOVEYCHIK, A.A., tekhn.red.

[Instructions for hydrometeorological stations and posts] Nastavlenie gidrometeorologicheskim stantsiiam i postam. No.6, pt.1 [Hydrological observations and work on rivers] Gidrologicheskie nabliudeniia i raboty na rekakh. Leningrad, Gidrometeor. izd-vo. 1957. 399 p. (MIRA 12:2)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologicheskoy slushby. 2. Sotrudniki Otdela gidrometrii i Laboratorii nanosov i gidrokhimii Gosudarstvennogo ordena Trudovogo Krasnogo Znameni gidrologicheskogo instituta (for all except Grosman, Soloveychik).
(Hydrography--Observers' manuals)